

REMARKS

Claims 1-5 are currently pending. In the Office Action, claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by Liebler. (US Pat. No. 6,646,450, (“Liebler”).

Preliminarily, claim 5 is amended to properly depend upon claim 4 rather than claim 5. Applicant requests approval of this amendment.

Applicant respectfully traverses the §103(a) rejection of claims 1-5 based on Liebler.

Liebler does not show “a resistor-capacitor network” ... “coupled to receive said sense current and referenced to a constant voltage and producing a voltage thereacross that is proportional to said inductor current” as recited in amended claim 1. Liebler’s resistor-capacitor R1-C1 is coupled in the feedback path of an op-amp and effectively referenced to the load. The inverting input (-) of the op-amp 32 is connected directly to the output (e.g., the load) and the op-amp 32 operates to maintain its non-inverting input at the same voltage level (e.g., virtual ground), so that one end of R1-C1 is effectively referenced to the output. The output of the inductor L (applied to the load) is not constant but instead exhibits load transients as known to those skilled in the art.

Applicant respectfully submits, therefore, that claim 1 is allowable over Liebler. Claims 2 and 3 are allowable over Liebler as depending upon an allowable based claim. Applicant requests withdrawal of this rejection.

Further with respect to claim 3, Liebler does not show “wherein said resistor-capacitor network is referenced to ground.” In Liebler, R1 and C1 are coupled in the feedback path of the op-amp 32 and not referenced to ground. As shown in FIG. 4 of Liebler, Liebler requires an additional buffer circuit 51 including another op-amp 52 to buffer the voltage V_S to generate a separate voltage V_S' referenced to ground. As described in paragraph [014] of the application as filed, the voltage on the sensing circuit is referenced to ground of the IC (or any other constant voltage level) so that it achieves good noise immunity. Yet Liebler requires additional circuitry to reference V_S to ground, creating a secondary signal V_S' referenced to ground, resulting in a less efficient design while exposing the signal to additional circuitry at a loss of signal-to-noise ratio (SNR).

Claim 4 is allowable for similar reasons as recited above for claim 1. Liebler does not show “generating a sense current as a function of the difference between said phase node voltage and said output voltage” and “supplying said sense current to a resistor-capacitor network comprised of a resistor R_s and a capacitor C_s referenced to a constant voltage” ... “so as to produce a voltage across said resistor-capacitor network that is proportional to said inductor current” as recited in amended claim 4. Applicant respectfully submits, therefore, that claim 4 is allowable over Liebler, and that claim 5 is allowable over Liebler as depending upon an allowable based claim. Applicant requests withdrawal of this rejection.

Further, with respect to claim 5, Liebler does not show “wherein said resistor-capacitor network is referenced to ground.” As noted above, Liebler requires an additional buffer circuit to generate a separate voltage V_S' referenced to ground, resulting in reduced noise-immunity and SNR.

PATENT


None of the amendments made herein were related to the statutory requirements of patentability, but instead were made for purposes of clarity.

CONCLUSION

Applicant respectfully submits that for the reasons recited above and for various other reasons, the claims are allowable and the rejections should be withdrawn. Reconsideration of the rejections is respectfully requested. Should this response be considered inadequate or non-responsive for any reason, or should the Examiner have any questions, comments or suggestions that would expedite the prosecution of the present case to allowance, Applicants' undersigned representative earnestly requests a telephone conference.

Respectfully submitted,

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